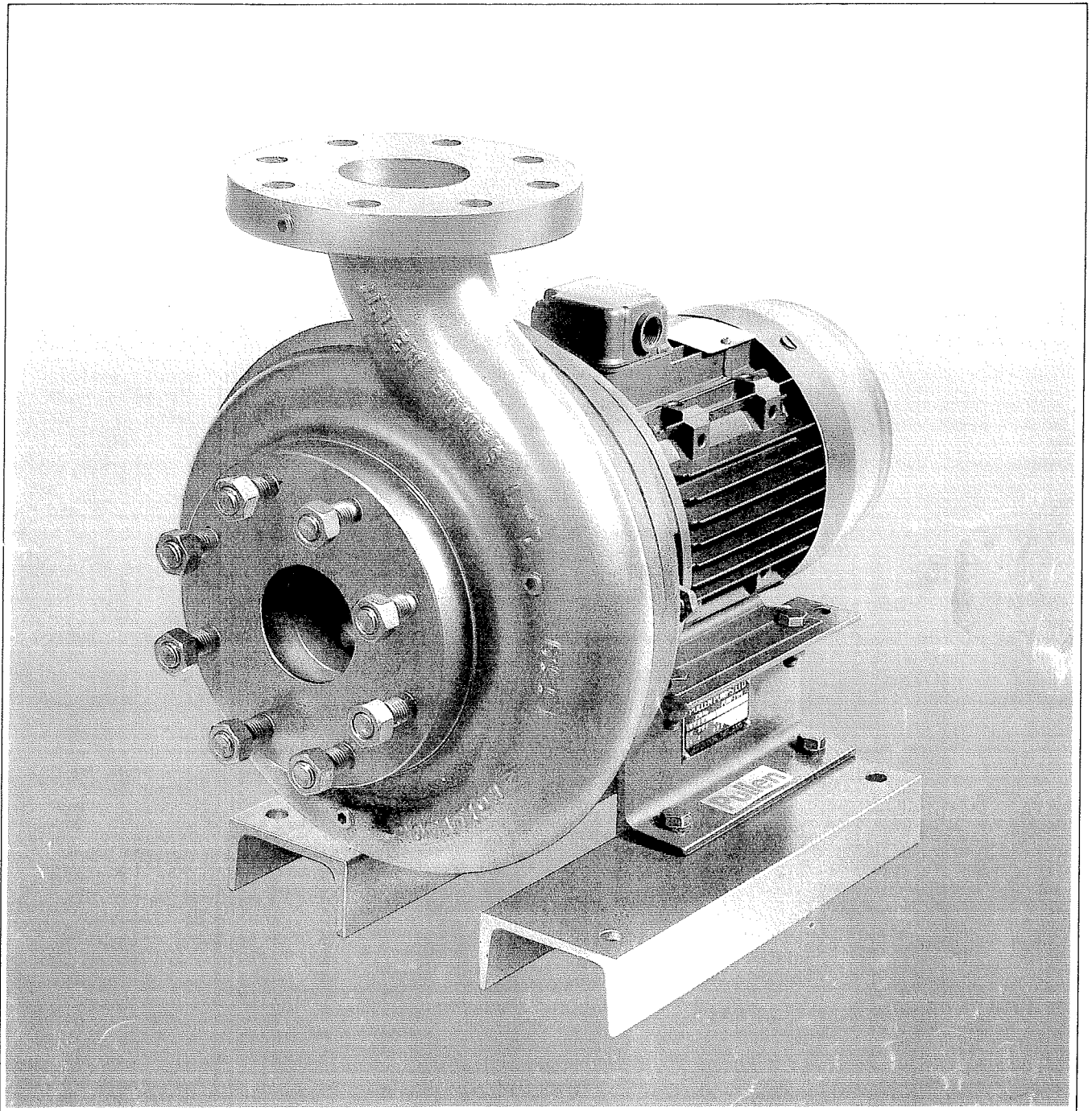


Pullen®

Close-Coupled Pumps Series KC

0–350 l/s
For hot and cold water boosting, circulating,
and fire-fighting applications



Series KC – The Versatile Close-Coupled Pump

Wide range of applications

KC pumps are suitable for heating and chilled water circulation (including district heating and cooling), hot water supply, cold water boosting and fire fighting. All pumps are capable of handling water at temperatures up to 125°C and system pressures up to 8, 10 or 16 bar, depending on the pump size (see dimension table). All pumps can be supplied to meet WRC requirements for potable water applications.

Compact design – Easy to install

The compact close-coupled design reduces plant room space required and simplifies installation by eliminating alignment problems between pump and motor.

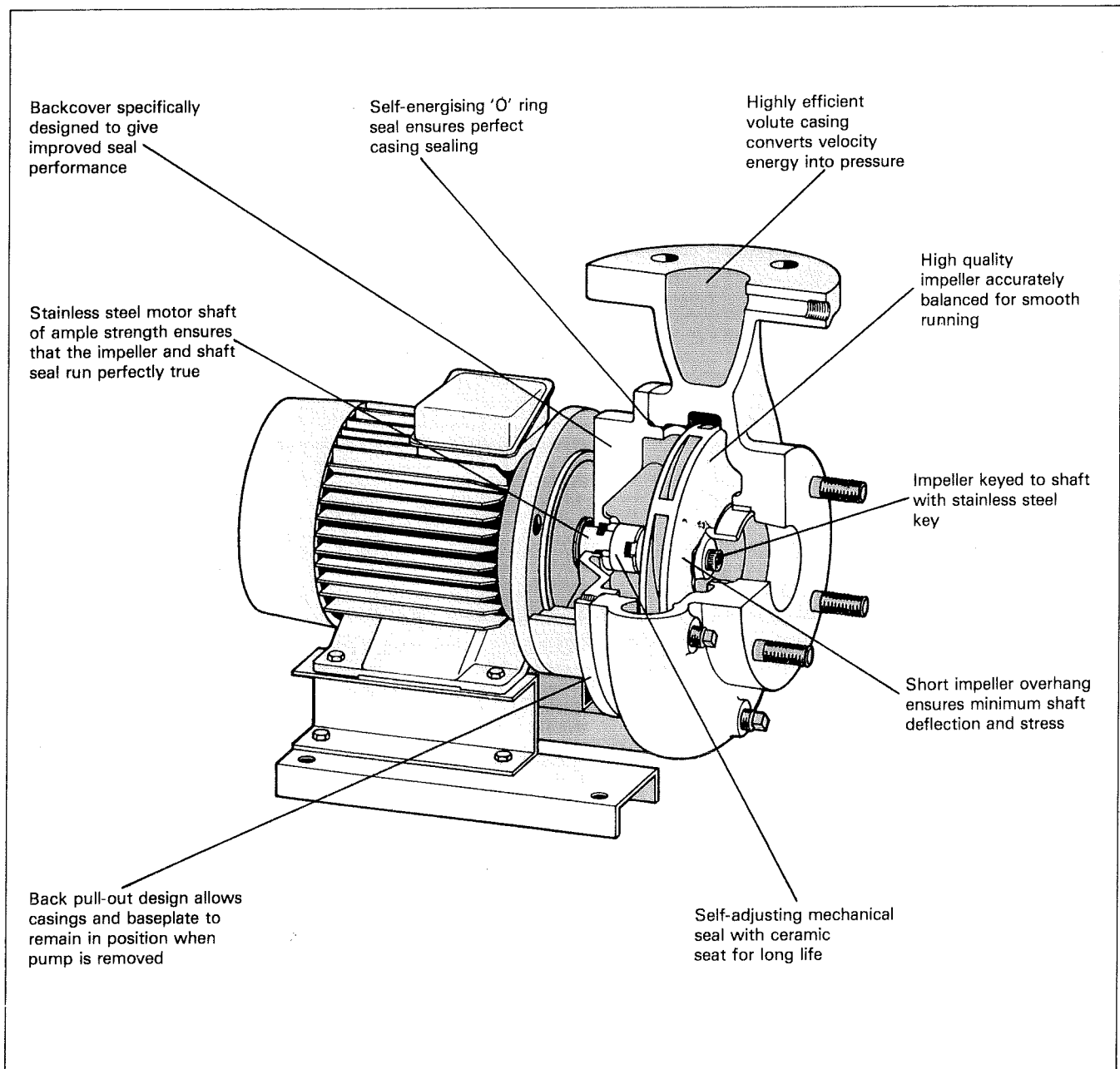
Exceptional Reliability

Series KC pumps feature a stainless steel motor shaft with minimum impeller overhang. This ensures that the impeller and shaft seal run perfectly true resulting in improved bearing and seal life as the shaft deflection

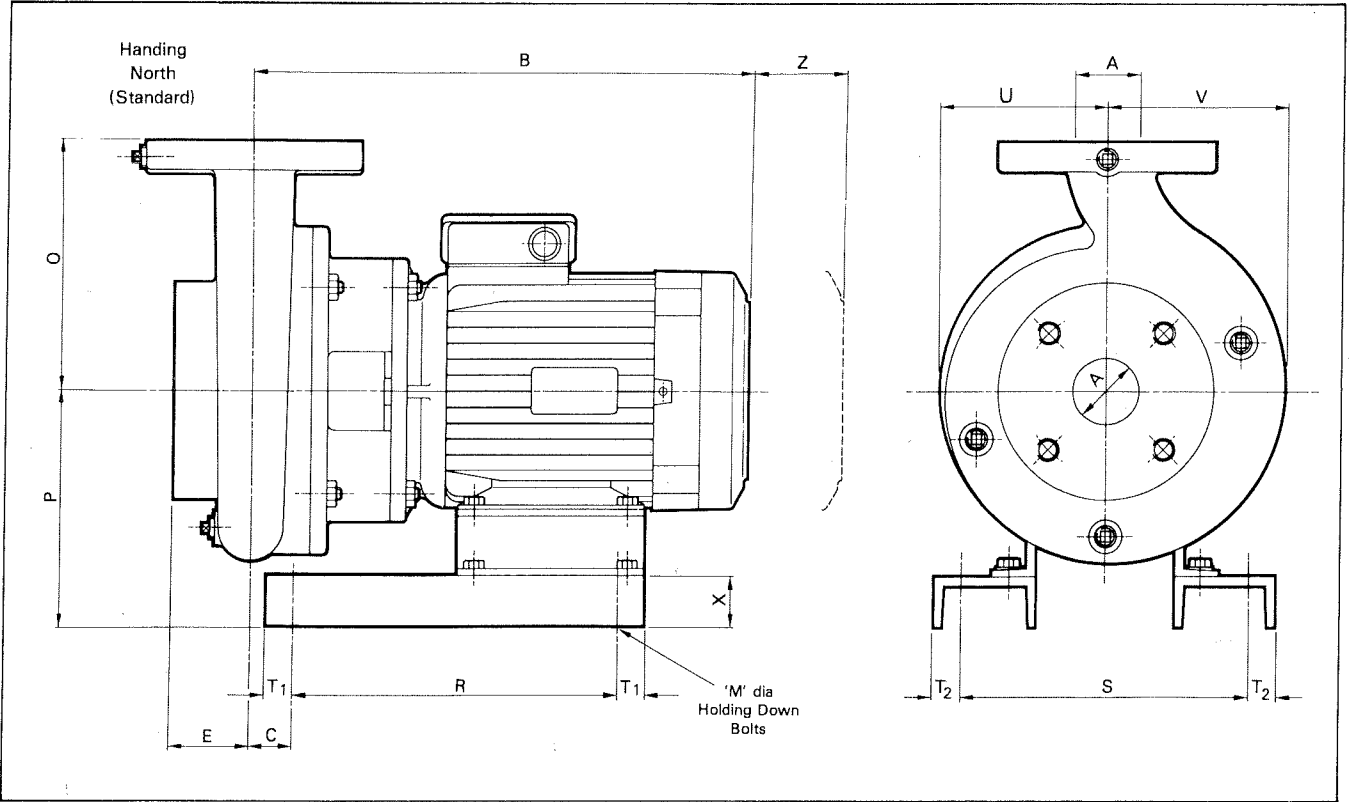
and bearing loads are reduced to a minimum. Mechanical seal performance has been further improved by a special design of seal housing incorporating vanes to guide the water to the seal interface, thereby ensuring copious lubrication at this critical point.

Simplified Maintenance

The well established back pull-out design allows routine maintenance and inspection to be carried out without disturbing pipework or baseplate connections. Mechanical seals can be changed simply by sliding the motor complete with impeller and backcover, along the baseplate and removing the impeller. The mechanical seal is now accessible and can be changed in a few minutes.



Dimensions

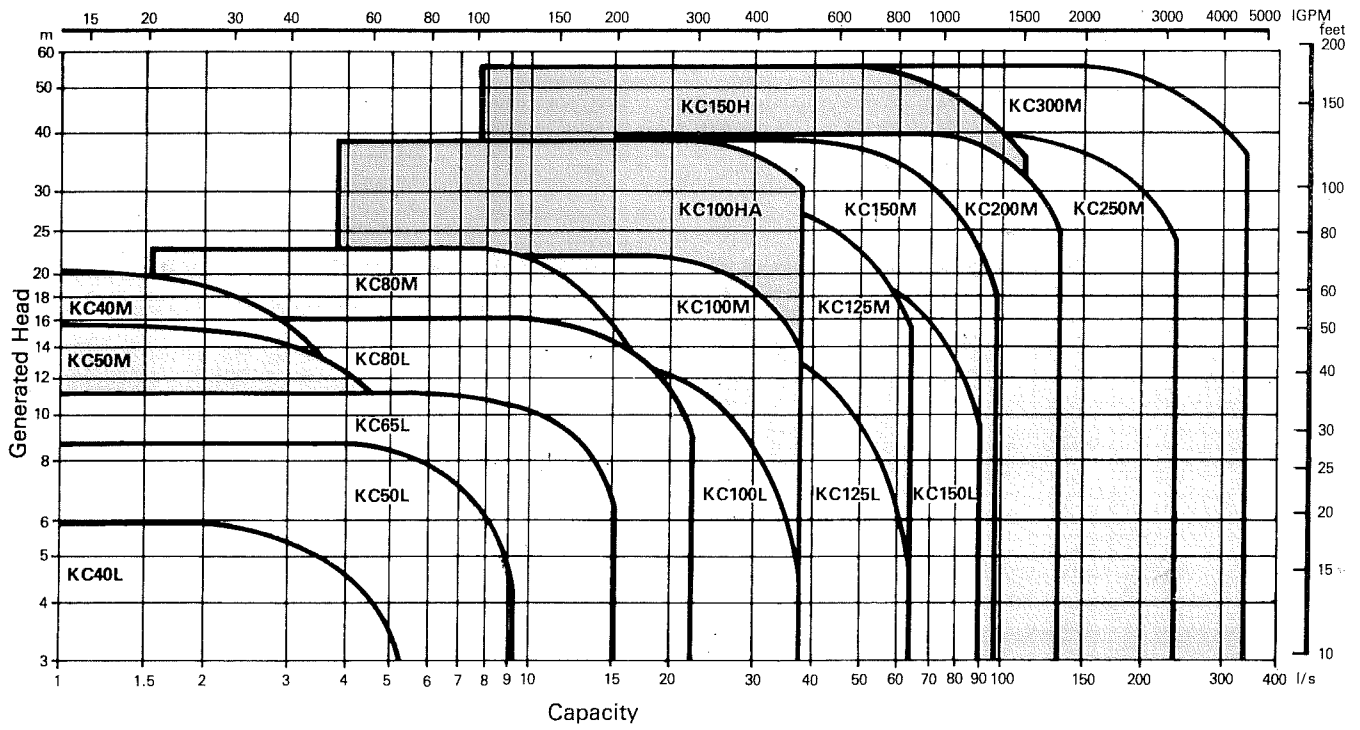


Pump	Motor		A	B*	C	E	M	O	P	R	S	T1	T2	U	V	X	Z	Wk. press.	Approx. wt. kg.
	Encl.	kW																	
KC40L	TEFC	0.55 to 1.1	40	357	61	60	10	160	194	220	197	20	20	101	110	38	80	8	30
		1.5 to 2.2	40	395	67	60	10	160	204	220	212	20	20	101	110	38	80	8	34
KC50L	TEFC	0.55 to 0.75	50	357	61	60	10	190	194	220	197	20	20	121	136	38	82	8	38
		1.5 to 2.2	50	395	67	60	10	190	204	220	212	20	20	121	136	38	82	8	42
		3.0	50	436	61	60	12	190	253	300	262	25	22	121	136	51	82	8	60
		4.0	50	456	68	60	12	190	265	300	292	25	22	121	136	51	82	8	69
		5.5	50	523	107	60	12	190	285	300	318	25	22	121	136	51	82	8	92
KC65L	TEFC	0.75	65	356	60	65	10	220	194	220	197	20	20	140	157	38	87	8	42
		1.1 to 1.5	65	394	66	65	10	220	204	220	212	20	20	140	157	38	87	8	46
KC80L	TEFC	1.1 to 1.5	80	387	59	75	10	250	204	220	212	20	20	160	178	38	110	8	61
		2.2 to 3.0	80	429	54	75	12	250	253	300	262	25	22	160	178	51	110	8	78
		4.0	80	449	61	75	12	250	265	300	292	25	22	160	178	51	110	8	87
KC100L	TEFC	1.5	100	392	64	80	10	270	204	220	212	20	20	174	202	38	119	8	69
		2.2 to 3.0	100	434	59	80	12	270	253	300	262	25	22	174	202	51	119	8	86
		4.0	100	454	66	80	12	270	265	300	292	25	22	174	202	51	119	8	95
KC125L	TEFC	3.0	125	439	64	95	12	310	253	300	262	25	22	192	225	51	143	8	99
		4.0	125	459	71	95	12	310	265	300	292	25	22	192	225	51	143	8	108
		5.5 to 7.5	125	552	98	95	12	310	285	300	318	25	22	192	225	51	143	8	132
KC150L	TEFC	5.5 to 7.5	150	553	99	100	12	360	285	300	318	25	22	227	262	51	157	8	161
		11 to 15	150	678	87	100	16	360	338	450	356	25	22	227	262	51	157	8	216
		30 to 37	150	787	74	100	16	360	441	550	454	25	40	227	262	89	157	8	368
		45	150	1100	90	100	16	360	466	550	492	25	40	227	262	89	157	8	425
		55 to 75	150	1200	67	100	20	360	491	640	542	25	40	227	262	89	157	8	571
	90 to 110	150	1320	64	100	20	360	521	760	593	25	40	227	262	89	157	8	571	
	DP	11 to 15	150	678	87	100	16	360	338	450	356	25	22	227	262	51	157	8	216
		30 to 37	150	769	100	100	16	360	358	450	381	25	22	227	262	51	157	8	264
		45 to 55	150	780	74	100	16	360	441	550	454	25	40	227	262	89	157	8	368
		75	150	790	90	100	16	360	466	550	492	25	40	227	262	89	157	8	425
90 to 110		150	880	92	100	20	360	491	640	542	25	40	227	262	89	157	8	579	
KC40M	TEFC	1.1 to 2.2	40	399	71	55	10	230	204	220	212	20	20	175	175	38	77	10	65
		3.0	40	441	66	55	12	230	253	300	262	25	22	175	175	51	77	10	82
		4.0	40	461	73	55	12	230	265	300	292	25	22	175	175	51	77	10	91
		5.5 to 7.5	40	526	110	55	12	230	285	300	318	25	22	175	175	51	77	10	120
		11 to 15	40	688	97	55	16	230	338	450	356	25	22	175	175	51	77	10	176
	DP	11 to 15	40	688	97	55	16	230	338	450	356	25	22	175	175	51	77	10	176

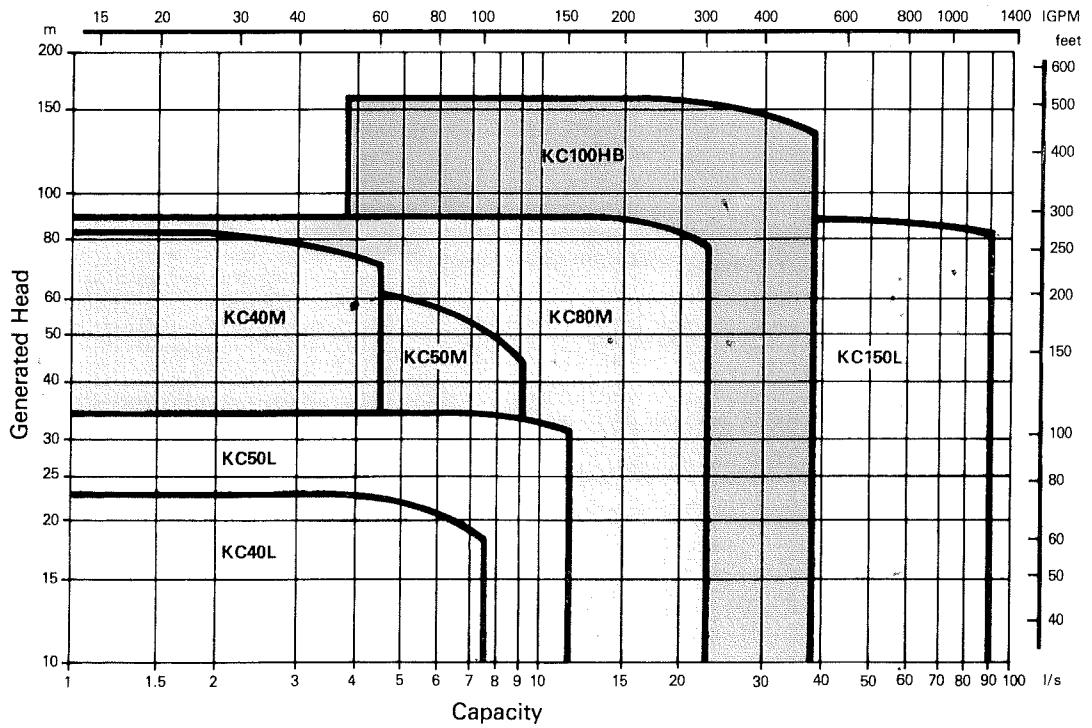
Pump	Motor		A	B*	C	E	M	O	P	R	S	T1	T2	U	V	X	Z	Wk. press.	Approx. wt. kg.	
	Encl.	kW																		
KC50M	TEFC	1.1 to 2.2	50	401	73	55	10	215	204	220	212	20	20	150	150	38	72	10	57	
		3.0	50	438	63	55	12	215	253	300	262	25	22	150	150	51	72	10	74	
		4.0	50	458	70	55	12	215	265	300	292	25	22	150	150	51	72	10	83	
		5.5 to 7.5	50	523	107	55	12	215	285	300	318	25	22	150	150	51	72	10	104	
KC80M	TEFC	2.2 to 3.0	80	451	76	70	12	275	253	300	262	25	22	172	183	51	95	10	95	
		4.0	80	471	83	70	12	275	265	300	292	25	22	172	183	51	95	10	104	
		7.5	80	574	120	70	12	275	285	300	318	25	22	172	183	51	95	10	126	
		11 to 18.5	80	666	75	70	16	275	338	450	356	25	22	172	183	51	95	10	189	
		22	80	757	88	70	16	275	358	450	381	25	22	172	183	51	95	10	237	
		30	80	748	62	70	16	275	441	550	454	25	40	172	183	89	95	10	341	
	DP	11 to 22	80	666	75	70	16	275	338	450	356	25	22	172	183	51	95	10	189	
		30	80	757	88	70	16	275	358	450	381	25	22	172	183	51	95	10	237	
KC100M	TEFC	5.5 to 7.5	100	554	100	80	12	300	285	300	318	25	22	194	215	51	122	8	131	
KC125M	TEFC	11 to 15	125	676	87	80	16	360	338	450	356	25	22	224	249	51	130	8	219	
		18.5	125	769	100	80	16	360	358	450	381	25	22	224	249	51	130	8	267	
KC150M	TEFC	11 to 18.5	125	676	87	80	16	360	338	450	356	25	22	224	249	51	130	8	219	
		18.5 to 22	150	769	100	85	16	420	358	450	381	25	22	256	282	51	129	8	285	
KC150M	DP	30	150	760	74	85	16	420	441	550	454	25	40	256	282	89	129	8	389	
		18.5	150	678	87	85	16	420	338	450	356	25	22	256	282	51	129	8	237	
	TEFC	22 to 30	150	769	100	85	16	420	358	450	381	25	22	256	282	51	129	8	285	
		30	200	792	79	140	16	457	441	550	454	25	40	316	367	89	132	10	500	
KC200M	TEFC	37 to 45	200	1105	95	140	16	457	466	550	492	25	40	316	367	89	132	10	557	
		55	200	1105	72	140	20	457	491	550	542	25	40	316	367	89	132	10	670	
		30	200	774	105	140	16	457	421	450	405	25	40	316	367	89	132	10	396	
	DP	37 to 45	200	792	79	140	16	457	441	550	454	25	40	316	367	89	132	10	500	
		55	200	805	95	140	16	457	466	550	492	25	40	316	367	89	132	10	557	
		30	250	804	90	220	16	580	441	550	454	25	40	340	409	89	175	10	595	
KC250M	TEFC	37 to 45	250	1117	106	220	16	580	466	550	492	25	40	340	409	89	175	10	652	
		55	250	1117	83	220	20	580	491	640	542	25	40	340	409	89	175	10	765	
		75	250	1230	96	220	20	580	491	640	542	25	40	340	409	89	175	10	824	
		30	250	786	116	220	16	580	421	450	405	25	40	340	409	89	175	10	491	
	DP	37 to 45	250	804	90	220	16	580	441	550	454	25	40	340	409	89	175	10	595	
		55	250	1117	106	220	16	580	466	550	492	25	40	340	409	89	175	10	652	
		75	250	1230	96	220	20	580	491	640	542	25	40	340	409	89	175	10	765	
		75	300	1253	120	250	20	600	491	640	542	25	40	376	443	89	180	10	1197	
		TEFC	90 to 110	300	1348	92	250	20	600	521	760	593	25	40	376	443	89	180	10	1373
			132 to 150	300	1443	130	250	20	600	556	800	644	25	40	376	443	89	180	10	1557
DP	75 to 90	300	910	120	250	20	600	491	640	542	25	40	376	443	89	180	10	1197		
	110 to 150	300	1025	92	250	20	600	521	760	593	25	40	376	443	89	180	10	1373		
KC100 HA	TEFC	11 to 15	100	698	107	80	16	380	338	450	356	25	22	240	259	51	105	10	236	
		18.5	100	789	120	80	16	380	358	450	381	25	22	240	259	51	105	10	284	
KC100 HA	DP	11 to 18.5	100	698	107	80	16	380	338	450	356	25	22	240	259	51	105	10	236	
		30 to 37	100	807	94	80	16	380	441	550	454	25	40	240	259	89	105	16	388	
KC100 HB	TEFC	45	100	120	110	80	16	380	466	550	492	25	40	240	259	89	105	16	445	
		55 to 75	100	1220	87	80	20	380	491	640	542	25	40	240	259	89	105	16	591	
		90	100	1345	89	80	20	380	369	760	593	25	40	240	259	89	105	16	767	
	DP	30 to 37	100	789	120	80	16	380	358	450	435	25	22	240	259	51	105	16	284	
		45 to 55	100	807	94	80	16	380	441	550	454	25	40	240	259	89	105	16	388	
		75	100	815	110	80	16	380	466	550	492	25	40	240	259	89	105	16	445	
KC150H	TEFC	90	100	905	117	80	20	380	491	640	542	25	40	240	259	89	105	16	591	
		30	150	792	79	105	16	450	441	550	454	25	40	288	322	89	142	10	472	
		37 to 45	150	1105	95	105	16	450	466	550	492	25	40	288	322	89	142	10	529	
	DP	55	150	1105	72	105	20	450	491	640	542	25	40	288	322	89	142	10	631	
		30	150	774	105	105	16	450	358	450	435	25	22	288	322	51	142	10	368	
37 to 45	150	792	79	105	16	450	441	550	454	25	40	288	322	89	142	10	472			
55	150	800	95	105	16	450	466	550	492	25	40	288	322	89	142	10	529			

*These dimensions may vary slightly depending on the make of motor fitted.
All flanges to BS4504/NP16

C Performance Characteristics at 50 Hz



Standard Pump Curves at 1450 rpm



Standard Pump Curves at 2900 rpm

Material Specifications

Casing and Backcover

Manufactured from close-grained cast iron to BS1452 grade 220.

Impeller

Cast in high-grade gunmetal to BS1400 grade LG2-C, dynamically balanced, and runs in renewable phosphor-bronze sealing rings.

Also available in close-grained cast iron to BS1452 grade 220.

KC200M, KC250M and KC300M fitted with cast-iron impeller as standard.

Impeller Key and Screw

Stainless steel, for resistance to corrosion.

Mechanical Seal

All Series KC pumps are fitted with seals of the flexible bellows type, having carbon running against a stationary ceramic seat.

Motor Support and Baseplate

Heavy-duty mild steel channel.

Motors

TEFC (IP54) or drip-proof (IP22) squirrel-cage type to metric BS requirements with winding temperature limited to 80°C rise at maximum output.

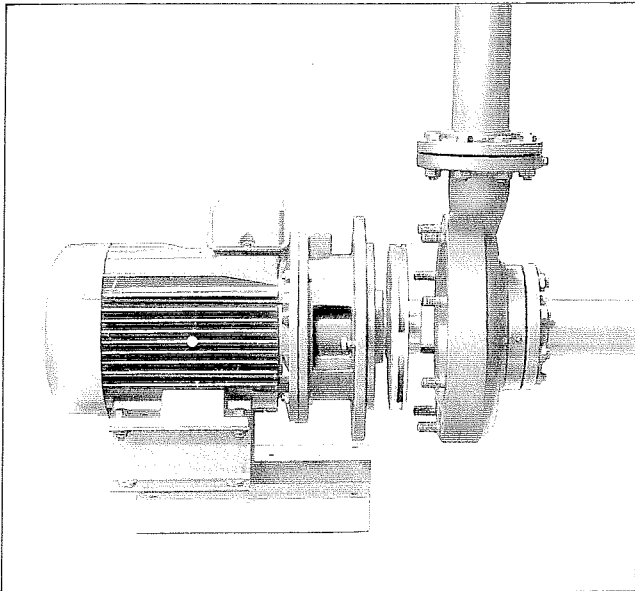
Motor Shaft

High-grade stainless steel to BS970 grade 431S29.

Tests

All pumps are fully tested before they leave our works to ensure perfect running. Performance characteristics are guaranteed in accordance with BS5316 Part 1.

Simplified Maintenance



Pull-back feature of Pullen Series KC pumps

The vertical split-casing allows simple maintenance of the internal components to be carried out without the need to disturb the connecting pipework and pump foundations. This simple procedure can be carried out in seven stages.

1. Isolate electrical supply to pump motor.
2. Close suction and discharge isolating valves.
3. Disconnect wires from motor terminal block making sure each wire is suitably marked with the appropriate terminal markings.
4. Disconnect conduit from motor terminal block.
5. Remove the four hexagon set screws securing the motor support to the baseplate.
6. Remove the casing nuts, and by tightening the two casing removal set screws, slide the motor and internals away from the casing.
7. The Impeller and Mechanical Seal are now exposed for inspection and/or repair.

We reserve the right to alter design and specification without prior notice



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